REMARKS

New Figure 9 has been added to the application to address the drawing objection noted in the Official Action. It is believed that the addition of Figure 9 does not constitute new matter. Specifically, the embodiments of original claim 8 and present claim 1 are not mutually exclusive and the language of these claims is such that they are combinable. These features are disclosed on page 4, lines 9-24, for example, and thus the addition of new Figure 9 does not constitute new matter.

The specification has been amended to make reference to new Figure 9.

Claims 1, 3-5, 7-9 and 11-18 were previously pending in the application. Claims 15, 17 and 18 are canceled leaving claims 1, 3-5, 7-9, 11-14 and 16 for consideration.

Claim 8 is rejected under 35 USC §112, first paragraph, as failing to comply with the written description requirement. This rejection is respectfully traversed.

MPEP §2163.02 states that the test for sufficiency of support in an application is whether disclosure of the application conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, applicant was in possession of the invention as now claimed.

Claim 1 as filed provides a plurality of processing elements and a switcher which connects the elements to each

other. Claim 6 as originally filed provides that one of the processing elements and the switcher are connected by peer-to-peer connection via at least one transmission line, and claim 8 as originally filed provides that at least one of the processing elements and the switcher emit and receive light, thereby an optical communication is performed between the processing element and the switcher.

Such a disclosure provides that communication of one of the elements can be through a peer-to-peer connection (hierarchy) via at least one transmission line and communication between one processing element and the switcher can be through optical communication (medium). These embodiments address different parameters, and there is no reason to exclude a combination of the hierarchy (peer-to-peer) and the medium (optical). Accordingly, applicant believes that there is support for a given switcher wherein one processing element has a peer-to-peer relationship with that switcher and one processing element uses an optical communication medium with that same switcher. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 1, 3-5, 7, 13 and 14 are rejected as anticipated by WINEGARDEN et al. 6,467,009. This rejection is respectfully traversed.

Claim 1 provides that one of plural processing elements and a single switcher are connected by peer-to-peer connection via at least one transmission line and a connection path between the plural processors forms a system LSI.

A peer-to-peer connection involves communication wherein each party has the same capabilities and either party can initiate a communication session. The peer-to-peer communication model is contrasted with client/server models and master/slave models. Applicant submits herewith a definition of peer-to-peer communication as defined by searchNetworking.com.

Applicant has thoroughly reviewed WINEGARDEN et al. and does not find the teaching of peer-to-peer connection. In contrast, column 4, lines 30-54 of WINEGARDEN et al. do teach a master/slave model. As set forth above, as defined by searchNetworking.com, a peer-to-peer communication model is contrasted by a master/slave model as taught by WINEGARDEN et al.

It appears that WINEGARDEN et al. teach a system similar to that disclosed with respect to prior art Figure 1 of the present application. Specifically, WINEGARDEN et al. use a common bus 225 to connect a plurality of processing elements, for example, 220, 210. As set forth on page 3, lines 10-13 of the present application, the design of systems based on a common bus is complicated, since a distance between chips to be connected is determined based on locations of the chips and a location of a

wiring connecting the chips. Accordingly, WINEGARDEN et al. teach a master/slave model with a common bus and do not disclose or suggest a peer-to-peer connection via at least one transmission line as recited in claim 1.

As the reference does not disclose that which is recited, the anticipation rejection is not viable. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 3-5, 7 and 13 depend from claim 1 and further define the invention and are also believed patentable over the cited prior art.

Claim 14 provides a single LSI switcher that connects each of a plurality of processing elements and a core processor to each other wherein one of the plural processing elements and the single switcher are connected by peer-to-peer connection via at least one transmission line. The comments above regarding claim 1 are equally applicable to claim 14.

In addition, claim 14 is specifically directed to an LSI semiconductor device. Such an LSI semiconductor device (large scale integrated circuit) has several hundred or thousands of active circuit devices thereon. Accordingly, the design and operation of such an LSI device has specific problems related thereto. WINEGARDEN et al. is directed to a configurable processor system on a single integrated circuit. However, there

is no disclosure or suggestion that the system of WINEGARDEN et al. is applicable to a large scale integrated circuit.

Claims 1, 3-5, 7 and 13 are rejected as anticipated by NGUYEN et al. 6,154,051. This rejection is respectfully traversed.

As disclosed on column 4, lines 9-16 of NGUYEN et al., the device of NGUYEN et al. includes a common control section 150 and a plurality of logic blocks 141, 142, 143 and 144 being distributed symmetrically relative to the common control section 150. A control signal distribution network 145 fans out from the common control section 150 for distributing a same set of control signals 145' to the logic blocks 141-144. This configuration of NGUYEN et al. appears to be a client/server model. As set forth above, searchNetworking.com defines a client/server model as contrasting to a peer-to-peer communication model. Applicant has thoroughly reviewed NGUYEN et al. and is unable to find any teaching or suggestion that the system of NGUYEN et al. is a peer-to-peer connection.

The position set forth in the Official Action is that a peer-to-peer connection is denoted by double-ended arrows. However, the only thing that the double-ended arrows of NGUYEN et al. indicate is that two elements are communicating bidirectionally with each other. Double-ended arrows are not a universally accepted symbol denoting peer-to-peer communication.

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Applicant asserts that NGUYEN et al. do not teach peer-to-peer communication and as such do not disclose that which is recited. Therefore, the anticipation rejection is not viable. Reconsideration and withdrawal of the rejection are respectfully requested.

Claims 3-5, 7 and 13 depend from claim 1 and further define the invention and are also believed patentable over NGUYEN et al.

Claims 9, 11 and 12 are rejected as unpatentable over WINEGARDEN et al. This rejection is respectfully traversed.

Claims 9, 11 and 12 depend from claim 1 and further define the invention. As set forth above, WINEGARDEN et al. do not disclose or suggest what is recited in claim 1. Therefore, claims 9, 11 and 12 would not be obvious in view of WINEGARDEN et al.

In support of applicant's position that there is a difference between the peer-to-peer communication as recited in claim 1 and the bi-directional communication of either WINEGARDEN et al. or NGUYEN et al., applicant submits herewith two additional sources of information that describe peer-to-peer communication. As seen from these sources, peer-to-peer communication is based on a communication protocol, for example, transmission control protocol (TCP) which uses specific protocol layers. Neither WINEGARDEN et al. nor NGUYEN et al. teach
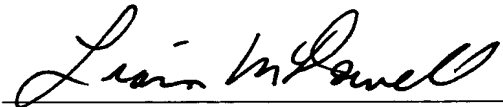
communication based on protocol layers such that communication within a layer is independent of the operation of the layer being used as is recognized by one of ordinary skill in the art as peer-to-peer communication.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. §1.16 or under 37 C.F.R.§1.17.

Respectfully submitted,

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APPENDIX:

- new drawing Figure 9

- a definition of peer-to-peer communication as defined by searchNetworking.com

- a definition of peer-to-peer communication as defined by a communications engineering course at www.erg.abdn.ac.uk/users/gorry/course/intro-pages/peer-to-peer.html

- a definition of peer-to-peer communication as defined by a Japanese technology paper at www.mstc.or.jp/faop/bs/report/R30adp.PDF